# **Refine Search**

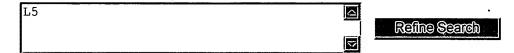
## Search Results -

Terms	Documents	
L1 and L4	2	

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
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Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:









## **Search History**

DATE: Tuesday, March 15, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
•	PT, USOC, EPAB, JPAB, DWPI, TDBD; PLU	UR=YES; OP=OR	
<u>L5</u>	ll and L4	2	<u>L5</u>
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<u>L3</u>	11 and L2	1	<u>L3</u>
<u>L2</u>	request\$ or query	547780	<u>L2</u>
<u>L1</u>	6125323.pn.	2	<u>L1</u>

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L5: Entry 1 of 2

File: USPT

Sep 26, 2000

DOCUMENT-IDENTIFIER: US 6125323 A

TITLE: Device for processing road data or intersection data

#### Abstract Text (1):

In traveling toward a destination, locus data for routes traveled by a vehicle is repeatedly <u>learned</u> and stored, and a route is identified in route searching using the stored locus data. The stored locus data may be rearranged or deleted, and undesired locus data is not used in route searching. Storage of locus data may be limited to certain areas so as not to store undesired locus data. The geographical coordinates of the stored locus data are corrected, as required, and locus data such as links are correctly shown on a map.

#### Brief Summary Text (3):

The present invention relates to a device for processing road data or intersection data and, more specifically, to a navigation device in which a route along which a moving body will travel is identified based upon map data, and the route that is identified is displayed to the operator. In particular, the invention relates to a navigation system which <u>learns</u> the route of travel.

#### Brief Summary Text (14):

Moreover, the present position of the vehicle is detected, the data related to the present position that is detected is compared with the data related to a road or an intersection, and, when the present position does not correspond to the road or to the intersection as a result of comparison, a new road or a new intersection corresponding to the present position is stored. Therefore, even a newly constructed road can be utilized to search a route provided data for the newly constructed road is learned and stored after having been traveled once.

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L3: Entry 1 of 1

File: USPT

Sep 26, 2000

DOCUMENT-IDENTIFIER: US 6125323 A

TITLE: Device for processing road data or intersection data

#### Detailed Description Text (103):

Next, it is determined whether or not the user has requested input of a new point to the point list 66 (step SM9). This request of input is generated by the  $\gamma$  operation of a touch switch 34. On a map shown on the display 33, for example, a cursor is moved to specify a particular point. The specified cursor position is input to the point list 66 as a requested point PT (step SM11). When the new point is input or when the user is not requesting to input the new point, the next step SM13 is executed. At the step SM13, it is determined whether the user has requested an increase or decrease of the numerical values of a range for storing a desired point PT.

#### <u>Detailed Description Text (105):</u>

Therefore, the amount of locus data stored in the locus data storage unit 40 Vrange of storage RP. When it is <u>requested</u> to change the value of the range of storage RP (step SM13), a circular area on a man surrounded to range of the range of range of the range of increases or decreases depending upon an increase or decrease of the value of the storage RP (step SM13), a circular area on a map surrounded by the radius of the range of storage RP is shown on the display 33 with the point PT as a center (step SM15). It is then determined again whether the value of the range RP of storage is increased or decreased (step SM19).

#### Detailed Description Text (106):

When it is requested to increase or decrease the range of storage RP (step SM19), the circular area of the range of storage RP of a newly set value is shown again on the display 33 (step SM15). The amount for increasing or decreasing the value of the range of storage RP is specified by the touch switch 34. For example, when the touch switch 34 for increasing the value is depressed, the value of the range of storage RP increases. When the touch switch 34 for decreasing the value is depressed, the value of the range of storage RP decreases.

#### Detailed Description Text (107):

When it is not requested to increase or decrease the value of the range of storage RP (step SM13) and when the user does not set any value for the range of storage RP (step SM17), a value determined depending upon the number of times HTP of recognizing the position is set as the range of storage RP (step SM21). That is, the value of the range of storage RP increases with an increase in the number of times HTP of recognizing the position. Conversely, the value of the range of storage RP decreases with a decrease in the number of times HTP of recognizing the position. When the number of times HTP of recognizing the position is large, it means that the ignition key of the vehicle is turned on and off frequently at a position PT having the number of times HTP of recognizing the position. This means that the user goes to the point PT very frequently, and the vicinities of the point PT are the areas where the user travels frequently.

#### Detailed Description Text (232):

When the locus route KV and the whole guide route 88 are shown in parallel on the

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display 33, a <u>query</u> is shown on the display 33 asking the user if he wishes to use the locus route KV (step SJ121). When the locus route KV is selected, the locus route KV is used in the route guide display. In this case, the remaining routes other than the locus route KV use the guide route 88. In FIG. 35, this is a portion of the guide route 88 from the node NOD24 to the destination node 80. When the locus route KV is different from the guide route 88 at the step SJ121, the locus route KV may be preferentially selected. However, the guide route 88 may be automatically selected only when the distance of the guide route 88 is very short in comparing the distance of a portion of the guide route 88 with the distance of the locus route KV.

#### Detailed Description Text (262):

The number of the links for which the evaluated values KCS is smaller than the threshold value ZZ are shown on the display 33 (step SK39), and the number of the links to be forcibly deleted are shown on the display 33. When the user requests deletion of links of a number larger than the above displayed amount of links to be deleted, i.e., requests an increase in the number of the links that are to be deleted (step SK41), the threshold value ZZ is increased, an increased number of the links have evaluated values KCS smaller than the threshold value ZZ, and the number of the links having evaluated values KCS smaller than the threshold value ZZ is shown on the display 33 (step SK39). Then, step SK41 is executed again.

#### <u>Detailed Description Text</u> (309):

FIG. 31 is a flow chart of a routine for confirming the storage of locus data (step SA21) of FIG. 9. First, when the user requests limitation of the geographical range of storage to limit locus data stored in the locus data storage unit 40 (step SQ1), it is determined if the start point nodes of the links, which are the locus data stored in the second RAM 6, lie within a range of storage of the radius RP with the points PT of point list 66 as centers. Here, the start point node is a node of the side closer to the point PT.

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L6: Entry 1 of 1

File: USPT

Sep 26, 2000

DOCUMENT-IDENTIFIER: US 6125323 A

TITLE: Device for processing road data or intersection data

### Brief Summary Text (15):

Besides, the present position of the vehicle is detected, the data related to the present position that is detected is compared with the data related to a road or to an intersection, and the data of traffic through the road or the intersection and the data related to the travel date and hour is updated and stored based upon the result of comparison. The stored data related to the road or the intersection may be selectively deleted when provided predetermined conditions related to the "passing volume", date and hour of travel are not satisfied. The data related to a road or the intersection may be deleted when data for a new road or a new intersection is stored in the storage unit, when the vehicle has arrived at the destination, when the user has instructed the deletion, or when the storage unit has no more capacity. Therefore, the newly stored road or the intersection that is no longer necessary is determined to be deleted based upon predetermined conditions. Accordingly, only effective and important locus data is stored in the data storage unit; i.e., the data storage unit is effectively utilized to its maximum degree. As a result, the data storage unit stores only that locus data which is important and preferred by the user, so that the user can obtain an optimal quide route.

#### Detailed Description Text (18):

Similarly, the beacon receiver unit 26 receives beacon signals from a data providing system such as VICS (Vehicle Information and Communication System) or the vilke, and the received data and the corrected data of GPS are output to the I/O data bus 28. The data transmitter/receiver unit 27 exchanges a variety of information related to the present position or the road conditions near the car relative to the bi-directional present position information offering system or the ATIS (advanced  $\underline{\text{traffic}}$  information service), etc., by utilizing a cellular phone, FM multiplex signals or a telephone circuit. These items of information are used as detecting information for the car position or support information of movement. The beacon receiver unit 26 and the data transmitter/receiver unit 27 may be omitted.

#### Detailed Description Text (39):

The traveled distance data ML represent a distance traveled by the vehicle and is based on the data from a distance sensor 23. The present position data PI is related to the present position and is input from a beacon receiver 26 or a data transmitter-receiver 27. The VICS data VD and ATIS data AD are input from the beacon receiver 26 or the data transmitter-receiver 27. The VICS data VD are used for correcting an error in the position of the vehicle detected by a GPS receiver 25. The ATIS data AD are used for determining traffic regulations and traffic jams in the area. When the map data is exchanged between the navigation device and the area monitoring center, relying upon the VICS data VD or the ATIS data AD, the guide route may be identified by using such data.

#### Detailed Description Text (326):

The program and/or the data may be sent (transmitted) to the flash memory 3 from an

external system via the data transmitter/receiver unit 27. The external system is a system for feeding the present position data to a data processing center of ATIS (Advanced <u>Traffic</u> Information Service). The external system is installed remote from the navigation device. The program is sent to the navigation device and is designed so as to be installed (transferred/copied) in the flash memory 3.

#### Detailed Description Text (327):

The routine for detecting the present position (step SA3), the input of a point (step SA6), the searching of a route (step SA7), the detecting of the present position (step SA9), the guidance and display of the route (step SA13), the processing of a traveling position (step SA15), the deletion of locus data (step SA19) and the confirmation of storage of locus data (step SA21) may be executed by the above-mentioned external system. The results of execution and map data are sent (transmitted) to the navigation device from the external system. Based upon the results of execution and map data that are received, the navigation device displays road data and route guidance. In this case, the road data, map data, facility data and <a href="traffic">traffic</a> jam data are processed and controlled at the same time by the external system, making it possible to search a route and to set points in an optimum manner.

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